

What is claimed is:

1. A method of controlling a storage system,

5 said storage system including a host computer, and a storage control device that is connected to said host computer to be able to communicate therewith and that is for inputting/outputting data to/from a storage device based on a data input/output request sent from said host computer;

10 said storage control device performing: a first control for managing a storage area in said storage device using a logical volume that is a logical storage area created on said storage area and storing, in said logical volume, management information that enables an operating system running on said host computer to manage said logical volume; a second control for controlling duplication  
15 of data in a first logical volume also to be stored on a real-time basis in a second logical volume that is different from said first logical volume; and a third control for making a logical volume identifier and a data set identifier for said first logical volume that are described in the management information in said first  
20 logical volume and a logical volume identifier and a data set identifier for said second logical volume that are described in the management information in said second logical volume match each other while said real-time duplication is being performed;

said method comprising:

25 said storage system generating a control program for performing a process for setting said logical volume identifier and said data set identifier for said first logical volume, which are described in said management information in said first logical volume, and said logical volume identifier and said data set  
30 identifier for said second logical volume, which are described in said management information in said second logical volume, to

be different from each other; and

said storage system interrupting said duplication and then  
executing said control program.

5 2. A method of controlling a storage system set forth in claim  
1, wherein

said control program includes a control program for  
interrupting said real-time duplication; and

10 said interruption of said real-time duplication is  
performed by executing said control program.

3. A method of controlling a storage system set forth in claim  
1, wherein

15 said operating system manages said logical volumes by  
recording them in a catalog; and,

when said second logical volume is being made to be  
recognized by said operating system as a logical volume  
independent of said first logical volume, said second logical  
volume is recorded in a catalog different from that of said first  
20 logical volume.

4. A method of controlling a storage system set forth in claim  
1, wherein

25 said operating system manages said logical volumes by  
recording them in a catalog; and,

when said second logical volume is being made to be  
recognized by said operating system as a logical volume  
independent of said first logical volume, said second logical  
volume is recorded in the same catalog as that of said first logical  
30 volume.

5. A method of controlling a storage system set forth in claim 1, further comprising:

when said second logical volume is being made to be recognized by said operating system as a logical volume independent of said first logical volume, said storage system generates a control program for performing a process for setting said logical volume identifier and said data set identifier for said first logical volume, which are described in said management information in said first logical volume, and said logical volume identifier and said data set identifier for said second logical volume, which are described in said management information in said second logical volume, to be the same as each other and for restarting said real-time duplication; and

said storage system restarts said real-time duplication by executing said control program.

6. A method of controlling a storage system set forth in claim 1, wherein

said management information includes VTOC.

7. A method of controlling a storage system set forth in claim 1, wherein

said management information includes management information about VSAM in case a data set is managed according to a VSAM format.

8. A method of controlling a storage system set forth in claim 1, wherein

said second logical volume is provided by a storage control device connected to said storage control device, to be able to communicate therewith, that provides said first logical volume.

9. A storage system comprising:

a host computer; and

a storage control device that is connected to said host  
5 computer to be able to communicate therewith and that is for  
inputting/outputting data to/from a storage device based on a data  
input/output request sent from said host computer, wherein

said storage system:

managing a storage area provided by said storage device  
10 using a logical volume that is a logical storage area created on  
said storage area;

storing, in said logical volume, management information  
that enables an operating system running on said host computer  
to manage said logical volume;

15 controlling duplication of data in a first logical volume  
also to be stored on a real-time basis in a second logical volume  
that is different from said first logical volume; and

making a logical volume identifier and a data set identifier  
for said first logical volume that are described in the management  
20 information in said first logical volume and a logical volume  
identifier and a data set identifier for said second logical volume  
that are described in the management information in said second  
logical volume match each other while said real-time duplication  
is being performed;

25 said storage system further comprising:

means for generating a control program for performing a  
process for setting said logical volume identifier and said data  
set identifier for said first logical volume, which are described  
in said management information in said first logical volume, and  
30 said logical volume identifier and said data set identifier for  
said second logical volume, which are described in said management

information in said second logical volume, to be different from each other; and

means for executing said control program after interrupting said real-time duplication to make said second logical volume be  
5 recognized as being accessible by said operating system either as a logical volume independent of said first logical volume or as a data set independent of a data set within said primary logical volume.

10 10. A computer-readable storage medium having a program to be executed by a storage system recorded thereon,

said storage system including: a host computer; and a storage control device that is connected to said host computer to be able to communicate therewith and that is for  
15 inputting/outputting data to/from a storage device based on a data input/output request sent from said host computer, and

said storage system: managing a storage area provided by said storage device using a logical volume that is a logical storage area created on said storage area; storing, in said logical  
20 volume, management information that enables an operating system running on said host computer to manage said logical volume; controlling duplication of data in a first logical volume also to be stored on a real-time basis in a second logical volume that is different from said first logical volume; and making a logical  
25 volume identifier and a data set identifier for said first logical volume that are described in the management information in said first logical volume and a logical volume identifier and a data set identifier for said second logical volume that are described in the management information in said second logical volume match  
30 each other while said real-time duplication is being performed;

said program making said storage system realize the

functions of:

generating a control program for performing a process for setting said logical volume identifier and said data set identifier for said first logical volume, which are described in  
5 said management information in said first logical volume, and said logical volume identifier and said data set identifier for said second logical volume, which are described in said management information in said second logical volume, to be different from each other; and

10 executing said control program after interrupting said duplication to make said second logical volume be recognized as being accessible by said operating system as a logical volume independent of said first logical volume.

15